



(Use as many sheets as necessary)

Sheet	1	of	2
-------	---	----	---

PTO/SB/08A (08-03)
Approved for use through 07/31/2006. OMB 0651-0031
Trademark Office; U.S. DEPARTMENT OF COMMERCE
information unless it contains a valid OMB control number.

Complete if Known

Application Number	10/822064
Filing Date	Apr 8, 2004
First Named Inventor	Neal W. Meyer
Art Unit	
Examiner Name	unassigned
Attorney Docket Number	200312670-1

U. S. PATENT DOCUMENTS

[illegible]

FOREIGN PATENT DOCUMENTS

[illegible]

**Examiner
Signature**

/Rick Chang/

Date
Considered

11/25/2007

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. *Applicant's unique citation designation number (optional). * See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. * Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). * For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. *Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. *Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use as many sheets as necessary)		Complete if Known	
		Application Number	10/822064
		Filing Date	Apr 8, 2004
		First Named Inventor	Neal W. Meyer
		Art Unit	
		Examiner Name	unassigned
Sheet 2	of 2	Attorney Docket Number	200312670-1

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
/RC/		SHIGETOU, "Room temperature direct bonding of CMP-Cu film for bumpless interconnection", Electronic Components & Tech Conf, May 29, 2001, pgs 755-760.	
/RC/		SUGA, "Bump-less interconnect for next generation system packaging", Electronic Components & Tech Conf, May 29, 2001, pgs 1003-1008.	
/RC/		SUGA, "Surface activated bonding for new flip chip and bumpless interconnect systems", Electronic Components & Tech Conf, May 29, 2001, pgs 105-111.	

Examiner Signature	/Rick Chang/	Date Considered	11/25/2007
--------------------	--------------	-----------------	------------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

1 Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and, by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

PATENT APPLICATION

Sheet 1 of 8



PTO-1449

LIST OF PATENTS AND PUBLICATIONS FOR
APPLICANT'S INFORMATION DISCLOSURE
STATEMENT

(Use several sheets if necessary)

ATTY. DOCKET NO.

200312670-1

APPLICATION NO.

10/822,064

CONFIRMATION NO.

APPLICANT

Meyer, et al.

FILING DATE

04/08/2004

GROUP

REFERENCE DESIGNATION

U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	PUBLICATION DATE	NAME	Pages, Columns, Lines Where Relevant Passages or Figures Appear
/RC/	1A	6284072	09/04/2001	Ryan, et al.	
	1B	6348999	02/19/2002	Summersgill, et al.	
	1C	5985084	11/16/1999	Summersgill, et al. 65	
	1D	6517995	02/11/2003	Jacobson, et al.	
/RC/	1E	6341190	01/22/2002	Sumersgill, et al.	
	1F				
	1G				
	1H				
	1I				
	1J				
	1K				

FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	PUBLICATION DATE	NAME OF PATENTEE OR APPLICANT	Pages/Columns/Lines Where Relevant Passages/Figures Appear	Check if Translation attached
/RC/	1L	WOI96/35971	11/14/1996	Epigem Limited		
/RC/	1M	WO01/11591	02/15/2001	Epigem Limited		
/RC/	1N	WO98/21626	05/22/1998	Epigem Limited		
	1O					
	1P					

OTHER REFERENCES (Including Author, Title, Date, Pertinent Pages, etc.)

/RC/	1Q	"High-resolution soft lithography"; IBM Zurich Research Laboratory, Science & Technology, Microcontact processing; http://www.zurich.ibm.com/st/microcontact/highres/ .
/RC/	1R	"Replica Molding (REM)"; Lithotemplate.html.; http://www.ee.washington.edu/research/microtech/cam/CAMreplicamolding.html .
/RC/	1S	SCHWARTZ; "Numerical modeling of liquid withdrawal from gravure cavities in coating operations; the effect of cell pattern"; Journal of Engineering Mathematics 42: 243-253, 2002;

EXAMINER

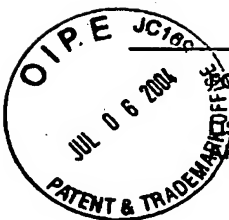
/Rick Chang/

DATE CONSIDERED

11/25/2007

PATENT APPLICATION

Sheet 2 of 8



FORM PTO-1449

OFFICE OF PATENTS AND PUBLICATIONS FOR
APPLICANT'S INFORMATION DISCLOSURE
STATEMENT

(Use several sheets if necessary)

ATTY. DOCKET NO.

200312670-1

APPLICATION NO.

10/822,064

CONFIRMATION NO.

APPLICANT

Meyer, et al.

FILING DATE

04/08/2004

GROUP

REFERENCE DESIGNATION

U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	PUBLICATION DATE	NAME	Pages, Columns, Lines Where Relevant Passages or Figures Appear
	2A				
	2B				
	2C				
	2D				
	2E				
	2F				
	2G				
	2H				
	2I				
	2J				
	2K				

FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	PUBLICATION DATE	NAME OF PATENTEE OR APPLICANT	Pages/Columns/Lines Where Relevant Passages/Figures Appear	Check if Translation attached
	2L					
	2M					
	2N					
	2O					
	2P					

OTHER REFERENCES (including Author, Title, Date, Pertinent Pages, etc.)

/RC/	2Q	"Coating Techniques"; Coating Techniques - Gravure Coating; http://www.ferron-magnetic.co.uk/coatings/gravure.htm .
/RC/	2R	TAN, et al; "Roller nanoimprint lithography"; J. Vac. Sci. Technol. B 16(6), Nov/Dec 1998; pp. 3926-3928.
/RC/	2S	"The Yasui Seiki "Micro Gravure" Coating Method"; www.yasui.com ; pp. 1-10.

EXAMINER

/Rick Chang/

DATE CONSIDERED

11/25/2007

PATENT APPLICATION

Sheet 3 of 8

FORM PTO-1449

LIST OF PATENTS AND PUBLICATIONS FOR
APPLICANT'S INFORMATION DISCLOSURE
STATEMENT

(Use several sheets if necessary)

ATTY. DOCKET NO.

200312670-1

APPLICATION NO.

10/822,064

CONFIRMATION NO.

APPLICANT

Meyer, et al.

FILING DATE

04/08/2004

GROUP

REFERENCE DESIGNATION

U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	PUBLICATION DATE	NAME	Pages, Columns, Lines Where Relevant Passages or Figures Appear
	3A				
	3B				
	3C				
	3D				
	3E				
	3F				
	3G				
	3H				
	3I				
	3J				
	3K				

FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	PUBLICATION DATE	NAME OF PATENTEE OR APPLICANT	Pages/Columns/Lines Where Relevant Passages/Figures Appear	Check if Translation attached
	3L					
	3M					
	3N					
	3O					
	3P					

OTHER REFERENCES (including Author, Title, Date, Pertinent Pages, etc.)

/RC/	3Q	STIX; "Breaking the Mold"; http://www.sciam.com/print_version.cfm?articleID= 0000AAB9-BAF8-1D07-8E49809EC5... ; 2pages.
/RC/	3R	"Continuous coating pilot plant"; ichemco; http://www.ichemco.it/eng/pilot.htm .; 4 pages.
/RC/	3S	"Norland Optical Adhesive 83H"; http://www.gentec.be/noa83h.htm .; 2 pages.

EXAMINER

/Rick Chang/

DATE CONSIDERED

11/25/2007

FORM PTO-1449

LIST OF PATENTS AND PUBLICATIONS FOR
APPLICANT'S INFORMATION DISCLOSURE
STATEMENT

(Use several sheets if necessary)

ATTY. DOCKET NO.

200312670-1

APPLICATION NO.

10/822,064

CONFIRMATION NO.

APPLICANT

Meyer, et al.

FILING DATE

04/08/2004

GROUP

REFERENCE DESIGNATION

U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	PUBLICATION DATE	NAME	Pages, Columns, Lines Where Relevant Passages or Figures Appear
	4A				
	4B				
	4C				
	4D				
	4E				
	4F				
	4G				
	4H				
	4I				
	4J				
	4K				

FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	PUBLICATION DATE	NAME OF PATENTEE OR APPLICANT	Pages/Columns/Lines Where Relevant Passages/Figures Appear	Check if Translation attached
	4L					
	4M					
	4N					
	4O					
	4P					

OTHER REFERENCES (including Author, Title, Date, Pertinent Pages, etc.)

/RC/	4Q	"Norland Optical Adhesive 83H" I http://www.norlandprod.com/adhesives/noa83h.html ; 2 pages.
/RC/	4R	SHEPHERD; "Modern coating technology systems, for paper, film and foil"; Frank Shepherd 1995; ISBN 0 902098. 6 pages.
/RC/	4S	MICHEL, et al; "Printing meets lithography: Soft approaches to high-resolution patterning"; IBM J. Res. & Dev. Vol., 45, No. 5; September 2001; pp. 697-719.

EXAMINER

/Rick Chang/

DATE CONSIDERED

11/25/2007

PATENT APPLICATION

Sheet 5 of 8

FORM PTO-1449

LIST OF PATENTS AND PUBLICATIONS FOR
APPLICANT'S INFORMATION DISCLOSURE
STATEMENT

(Use several sheets if necessary)

ATTY. DOCKET NO.

200312670-1

APPLICATION NO.

10/822,064

CONFIRMATION NO.

APPLICANT

Meyer, et al.

FILING DATE

04/08/2004

GROUP

REFERENCE DESIGNATION

U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	PUBLICATION DATE	NAME	Pages, Columns, Lines Where Relevant Passages or Figures Appear
	5A				
	5B				
	5C				
	5D				
	5E				
	5F				
	5G				
	5H				
	5I				
	5J				
	5K				

FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	PUBLICATION DATE	NAME OF PATENTEE OR APPLICANT	Pages/Columns/Lines Where Relevant Passages/Figures Appear	Check if Translation attached
	5L					
	5M					
	5N					
	5O					
	5P					

OTHER REFERENCES (including Author, Title, Date, Pertinent Pages, etc.)

/RC/	5Q	LEE, et al; "Design and Fabrication of CD-Like Microfluidic Platforms for Diagnostics: Polymer-Based Microfabrication"; Biomedical Microdevices 3:4, 339-351; 2001; pp. 339-351.
/RC/	5R	MA, et al.; "Low Temperature Bonding for Wafer Scale Packaging and Assembly of Micromachined Sensors"; 1998-1999; 3 pages.
/RC/	5S	GILLMOR, et al.; "Low-Contact-Angle Polydimethyl Siloxane (PDMS) Membranes for Fabricating Micro-Bioarrays"; Now at Biology and Biomedical Sciences, Yale University. 6 pages.

EXAMINER

/Rick Chang/

DATE CONSIDERED

11/25/2007

PATENT APPLICATION

Sheet 6 of 8

FORM PTO-1449 LIST OF PATENTS AND PUBLICATIONS FOR APPLICANT'S INFORMATION DISCLOSURE STATEMENT (Use several sheets if necessary)	ATTY. DOCKET NO. 200312670-1	APPLICATION NO. 10/822,064	CONFIRMATION NO.
APPLICANT Meyer, et al.			
FILING DATE 04/08/2004		GROUP	

REFERENCE DESIGNATION U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	PUBLICATION DATE	NAME	Pages, Columns, Lines Where Relevant Passages or Figures Appear
	6A				
	6B				
	6C				
	6D				
	6E				
	6F				
	6G				
	6H				
	6I				
	6J				
	6K				

FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	PUBLICATION DATE	NAME OF PATENTEE OR APPLICANT	Pages/Columns/Lines Where Relevant Passages/Figures Appear	Check if Translation attached
	6L					
	6M					
	6N					
	6O					
	6P					

OTHER REFERENCES (including Author, Title, Date, Pertinent Pages, etc.)

/RC/	6Q	EFIMENKO, et al; "Surface Modificatin of Sylgard-184 Poly (dimethyl siloxane) Networks by Ultraviolet and Ultraviolet/Ozone Treatment"; Journal of Colloid and Interface Science 254, 306-315 (2002) doi: 10.1006/jcis.2002.8594. pp. 306-315.
/RC/	6R	"Micro-Contact Printing (uCP)"; Lithotemplate.html; http://www.ee.washington.edu/research/microtech/cam/CAMmicrocontactprinting.html ; 2 pages.
/RC/	6S	"High-resolution microcontact printing of SAMs"; IBM Zurich Research Laboratory, Science & Technology. Microcontact processing; http://www.zurich.ibm.com/st/microcontact/highres/mucp.html .; 2 pages.

EXAMINER

DATE CONSIDERED

/Rick Chang/

11/25/2007

PATENT APPLICATION

Sheet 7 of 8

FORM PTO-1449

**LIST OF PATENTS AND PUBLICATIONS FOR
APPLICANT'S INFORMATION DISCLOSURE
STATEMENT**

(Use several sheets if necessary)

ATTY. DOCKET NO.

200312670-1

APPLICATION NO.

10/822,064

CONFIRMATION NO.

APPLICANT

Meyer, et al.

FILING DATE

04/08/2004

GROUP

REFERENCE DESIGNATION

U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	PUBLICATION DATE	NAME	Pages, Columns, Lines Where Relevant Passages or Figures Appear
	7A				
	7B				
	7C				
	7D				
	7E				
	7F				
	7G				
	7H				
	7I				
	7J				
	7K				

FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	PUBLICATION DATE	NAME OF PATENTEE OR APPLICANT	Pages/Columns/Lines Where Relevant Passages/Figures Appear	Check If Translation attached
	7L					
	7M					
	7N					
	7O					
	7P					

OTHER REFERENCES (Including Author, Title, Date, Pertinent Pages, etc.)

/RC/	7Q	WHITESIDES; "Soft Lithography"; http://www.wtec.org/loyola/nano/US.Review/04_02.html ; 4 pages.
/RC/	7R	STIX; "Soft Manufacturing; Shaping small structures in rubber has moved beyond a Harvard lab"; Scientific American.com; 2 pages.
/RC/	7S	"Teflon AF: A new Generation of High-Performance Fluoropolymer Resins"; http://www.dupont.com/teflon/af/ . 1 page.

EXAMINER

/Rick Chang/

DATE CONSIDERED

PATENT APPLICATION

Sheet 8 of 8

FORM PTO-1449

LIST OF PATENTS AND PUBLICATIONS FOR
APPLICANT'S INFORMATION DISCLOSURE
STATEMENT

(Use several sheets if necessary)

ATTY. DOCKET NO.

200312670-1

APPLICATION NO.

10/822,064

CONFIRMATION NO.

APPLICANT

Meyer, et al.

FILING DATE

04/08/2004

GROUP

REFERENCE DESIGNATION

U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	PUBLICATION DATE	NAME	Pages, Columns, Lines Where Relevant Passages or Figures Appear
	8A				
	8B				
	8C				
	8D				
	8E				
	8F				
	8G				
	8H				
	8I				
	8J				
	8K				

FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	PUBLICATION DATE	NAME OF PATENTEE OR APPLICANT	Pages/Columns/Lines Where Relevant Passages/Figures Appear	Check if Translation attached
	8L					
	8M					
	8N					
	8O					
	8P					

OTHER REFERENCES (including Author, Title, Date, Pertinent Pages, etc.)

/RC/	8Q	Silicone-based Adhesives; Industrial and Electronics Products; www.adhesiversresearch.com/catalog/indsil.htm
	8R	
	8S	

EXAMINER

/Rick Chang/

DATE CONSIDERED

11/25/2007